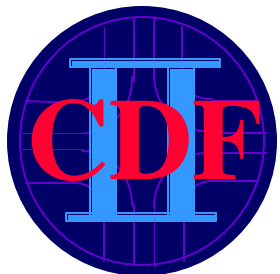


# CDF Status Report

Eric James

September 9<sup>th</sup>, 2002

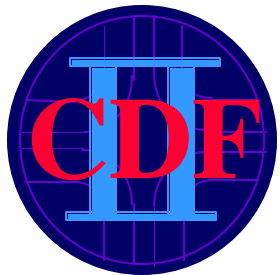
All Experimenters' Meeting



## Store Summary

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Store	Date	Init Lum	Int. Lum	Lum to Tape	Eff	Silicon
1723	M 9/2	24.5e30	610.3 nb <sup>-1</sup>	447.9 nb <sup>-1</sup>	73.4	Yes
1727	T 9/3	22.3e30	557.5 nb <sup>-1</sup>	302.9 nb <sup>-1</sup>	54.3	No
1728	W 9/4	19.3e30	646.6 nb <sup>-1</sup>	520.4 nb <sup>-1</sup>	80.5	No
1730	F 9/6	13.3e30	284.2 nb <sup>-1</sup>	220.0 nb <sup>-1</sup>	77.4	No
1735	F 9/6	23.9e30	637.1 nb <sup>-1</sup>	361.4 nb <sup>-1</sup>	56.7	No
1737	Su 9/8	22.6e30	872.1 nb <sup>-1</sup>	507.0 nb <sup>-1</sup>	58.1	No



## Totals for Week

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- Total Luminosity Delivered =  $3.6 \text{ pb}^{-1}$
- Luminosity to Tape =  $2.4 \text{ pb}^{-1}$  (67%)
- Luminosity to Tape (with Silicon) =  $.4 \text{ pb}^{-1}$  (12%)



## Silicon Issues

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- At the beginning of store #1727, we were not able to start data taking due to what is now believed to be a hardware problem with SVT.
- In the course of diagnosing this problem, the detector run configuration was modified into an unusual state for debugging.
- In this state the silicon ladders drew higher than usual digital currents and jumpers on four ladders were lost disabling the z-side readout on those ladders.



## Silicon Issues (cont.)

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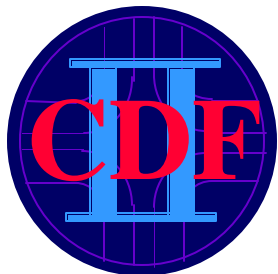
- At the end of store #1727, there was a very dirty beam abort due to the loss of the accelerator AA marker causing the kicker magnets to fire outside the abort gaps.
- This event had significant potential for damaging our silicon detector (similar to event from last March), but fortunately the high voltage was off due to our other issues from the beginning of the store.



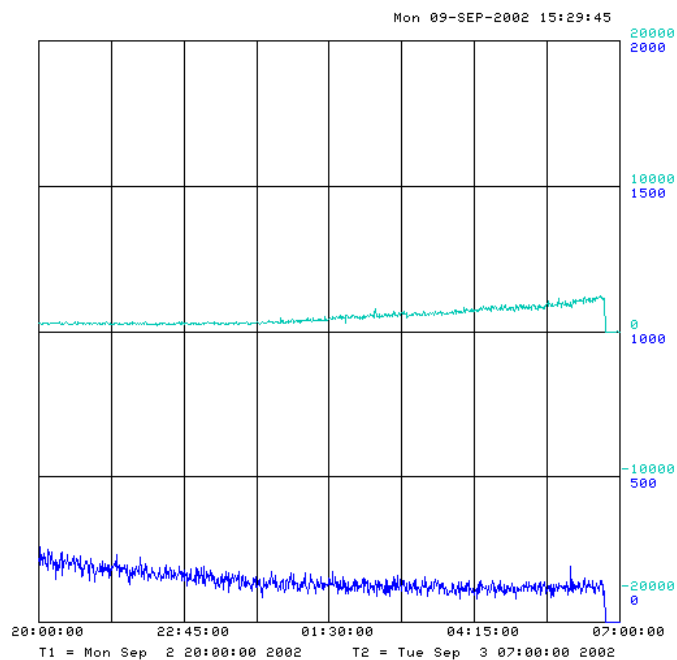
## Silicon Issues (cont.)

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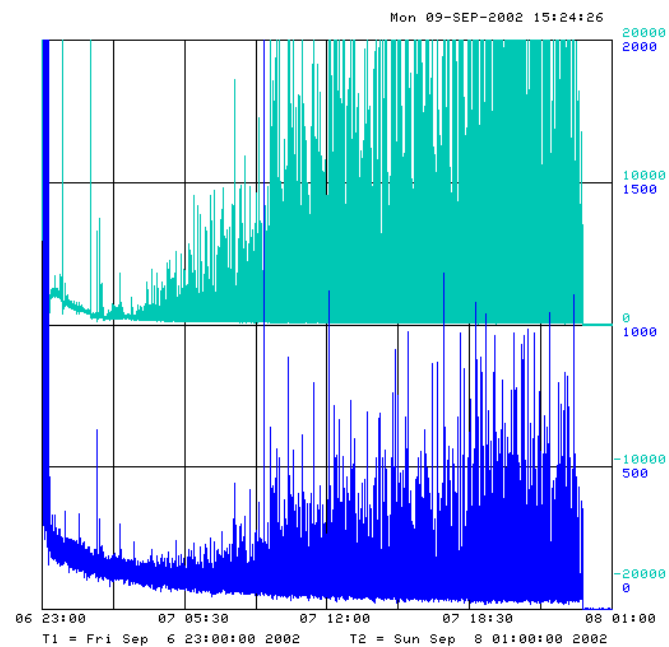
- At the beginning of store #1735, the Tevatron Electron Lens malfunctioned and was taken offline.
- CDF depends on the TEL to keep beam out of the abort gaps so that the silicon detector does not see high losses during the nominal beam abort sequence.



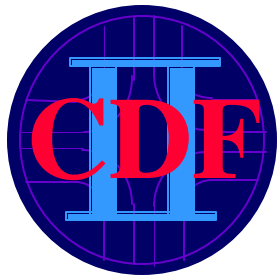
# Losses seen in Abort Gaps



TEL On



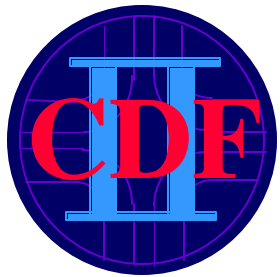
TEL Off



## Present Status

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- Tevatron has enabled a circuit that monitors the AA marker and fires a clean abort if the signal is lost.
- The Tevatron Electron Lens was fixed during an access this morning.
- The silicon group has run a large number of tests this week in parallel with non-silicon data collection to better understand the original hardware failures.



## Bottom Line

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- CDF plans to gradually re-integrate the silicon detector into data collection during the upcoming store.
- The silicon group has settled upon a specific set of steps for accomplishing this task.